Ingestion of Bivalve Molluscan Larvae by the Polychaete Annelid *Polydora ligni* [1]

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(1 Plate)

Bivalve larvae are reared in the laboratory in high densities, and thus they may be readily available to accidentally introduced predators. Loosanoff (1959) reported that the heterotrich protozoan *Condylostoma* sp. fed on larvae of the hard clam, *Venus (= Mercenaria) mercenaria* Linnaeus, 1758, and of the American oyster, *Crassostrea virginica* (Thunberg, 1793), in laboratory cultures.

In 1970 we found annelids tentatively identified as *Polydora ligni* Webster, 1879, feeding on larvae of the Manila clam, *Tapes semidecussata* Reeve, 1864 and on *Crassostrea gigas* (Gmelin, 1791) larvae in our laboratory cultures (Figure *1*). We do not know the numbers of larvae eaten daily but losses were readily apparent. One worm contained more than 20 larvae.

The annelids apparently entered the molluscan rearing tanks as larvae, which presumably fed on the algae *Monochrysis lutheri* Droop, 1953 and *Isochrysis galbana* Parke, 1949. The algae were the food organisms used for culturing the molluscan larvae. The worms completed development to the adult stage and built tubes at salinities and temperatures ranging from 25 to 34‰ and 18 to 26° C, respectively. The value of molluscan larvae as food for culturing marine annelids merits investigation.

Control of the infestation was successfully achieved by filtration and ultraviolet irradiation of the water entering the rearing tanks together with periodic cleaning of the tanks.

Literature Cited

Loosanoff, Victor Lyon
1959. *Condylostoma* – an enemy of bivalve larvae. Science 129 (3342): 147

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